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[54] **SYSTEM AND METHOD FOR IDENTIFYING THE GEOGRAPHIC REGION OF A GEOGRAPHIC AREA WHICH CONTAINS A GEOGRAPHIC POINT ASSOCIATED WITH A LOCATION**

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[51] **Int. Cl.⁶** **G06G 7/78**

[52] **U.S. Cl.** **701/207; 701/208; 701/202; 702/150; 342/457; 342/357; 340/990; 340/995**

[58] **Field of Search** **701/200, 207, 701/208, 209, 210, 211, 201, 202; 340/988, 990, 995; 73/178 R; 342/451, 452, 457, 357; 702/150; 455/422, 429**

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[57] **ABSTRACT**

A system and method for identifying the geographic region of a geographic area which contains a geographic point associated with a location. A description of a location such as an address, a nearby intersection, or a nearby landmark, is used to determine geographic coordinates for a geographic point associated with the location. To identify the geographic region which contains the geographic point, one of the plurality of geographic regions in a geographic area is selected as a selected region and a determination is made as to whether the geographic point is located within the selected region. If the geographic point is located within the selected region, then the geographic region is identified. Different preferred methods correspond to different methods for making a determination as to whether the geographic point is located within the selected region. In the preferred methods, the determination is made by drawing a line of predetermined slope through the geographic point and through the selected region and comparing the geographic point to the intersection points between the line and the boundary of the selected region. Some of the preferred methods use estimated geographic regions.

51 Claims, 12 Drawing Sheets

